

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Chicago 2417 Bond Street University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-76983-1

Client Project/Site: Ponds and Process Tanks - 05-14-14

For:

Central Wire (Techalloy) 6509 Olson Road Union, Illinois 60180

Attn: Robert Johnson

Authorized for release by: 5/22/2014 9:04:19 PM

Sandie Fredrick, Project Manager II (920)261-1660

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks - 05-14-14

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Definitions/Glossary

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks - 05-14-14

TestAmerica Job ID: 500-76983-1

Qualifiers

GC/MS VOA

Qualifier Qualifier Description

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier Qualifier Description

B Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier Qualifier Description

HF Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CNF Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision level concentration
MDA Minimum detectable activity
EDL Estimated Detection Limit

MDC Minimum detectable concentration

MDL Method Detection Limit
ML Minimum Level (Dioxin)

NC Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC Quality Control
RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

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Case Narrative

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks - 05-14-14

TestAmerica Job ID: 500-76983-1

Job ID: 500-76983-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-76983-1

Comments

No additional comments.

Receipt

The samples were received on 5/15/2014 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 7.6° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

Method(s) 6020, 6020A: The internal standard (Rh) was used to report the elements As, Se and Zn in AD batch 236846.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

TestAmerica Chicago 5/22/2014

Client Sample Results

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks - 05-14-14

TestAmerica Job ID: 500-76983-1

Client Sample ID: P&T Effluent

Lab Sample ID: 500-76983-1 Date Collected: 05/14/14 09:50

Matrix: Ground Water

Date Received: 05/15/14 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.1		1.0	0.20	ug/L			05/17/14 16:06	1
Tetrachloroethene	0.96	J	1.0	0.17	ug/L			05/17/14 16:06	1
Trichloroethene	1.1		0.50	0.19	ug/L			05/17/14 16:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98	***************************************	75 - 125					05/17/14 16:06	1
4-Bromofluorobenzene (Surr)	93		75 - 120					05/17/14 16:06	1
Dibromofluoromethane	96		75 - 120					05/17/14 16:06	1
Toluene-d8 (Surr)	100		75 - 120					05/17/14 16:06	1

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 0.200 0.200 SU 05/15/14 13:11 рΗ 7.83 HF

Client Sample ID: North Pond Lab Sample ID: 500-76983-2 Date Collected: 05/14/14 10:00 Matrix: Ground Water

Date Received: 05/15/14 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ron	130		100	12	ug/L		05/15/14 14:00	05/16/14 14:30	1
Lead	0.91	В	0.50	0.091	ug/L		05/15/14 14:00	05/16/14 14:30	1
Manganese	14		2.5	0.76	ug/L		05/15/14 14:00	05/16/14 14:30	1
Nickel	12		2.0	0.69	ug/L		05/15/14 14:00	05/16/14 14:30	1
Selenium	<0.69		2.5	0.69	ug/L		05/15/14 14:00	05/16/14 14:30	1

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	0.34		0.10	0.045	mg/L			05/21/14 14:01	1
pH	6.98	HF	0.200	0.200	su			05/15/14 13:33	1

Client Sample ID: South Pond Lab Sample ID: 500-76983-3

Date Collected: 05/14/14 10:05

Nitrogen, Nitrate Nitrite

рΗ

)ate Received: 05/15/14 10:0 -									
Method: 6020A - Metals (ICI	-								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	120		100	12	ug/L		05/15/14 14:00	05/16/14 14:33	•
Lead	0.39	JB	0.50	0.091	ug/L		05/15/14 14:00	05/16/14 14:33	1
Manganese	7.4		2.5	0.76	ug/L		05/15/14 14:00	05/16/14 14:33	•
Nickel	6.8		2.0	0.69	ug/L		05/15/14 14:00	05/16/14 14:33	
Selenium	<0.69		2.5	0.69	ug/L		05/15/14 14:00	05/16/14 14:33	
- General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

0.10

0.200

0.045 mg/L

0.200 SU

0.24

6.84 HF

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05/21/14 14:03

05/15/14 13:55

Matrix: Ground Water

Client Sample Results

Client: Central Wire (Techalloy) TestAmerica Job ID: 500-76983-1

Project/Site: Ponds and Process Tanks - 05-14-14

Client Sample ID: Trip Blank Lab Sample ID: 500-76983-4

Date Collected: 05/14/14 08:45 Matrix: Water

Date Received: 05/15/14 10:00

Method: 8260B - Volatile Orga	nic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.20		1.0	0.20	ug/L			05/17/14 16:31	1
Tetrachloroethene	<0.17		1.0	0.17	ug/L			05/17/14 16:31	1
Trichloroethene	<0.19		0.50	0.19	ug/L			05/17/14 16:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		75 _ 125			-		05/17/14 16:31	1
4-Bromofluorobenzene (Surr)	98		75 - 120					05/17/14 16:31	1
Dibromofluoromethane	93		75 _ 120					05/17/14 16:31	1
Toluene-d8 (Surr)	99		75 - 120					05/17/14 16:31	1









Lab Chronicle

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks - 05-14-14

TestAmerica Job ID: 500-76983-1

Client Sample ID: P&T Effluent

Date Collected: 05/14/14 09:50 Date Received: 05/15/14 10:00 Lab Sample ID: 500-76983-1

Matrix: Ground Water

Dilution Batch Prepared Method Prep Type Туре Run Factor Number or Analyzed Analyst Lab Total/NA Analysis 8260B 236760 05/17/14 16:06 JLH TAL CHI Total/NA Analysis SM 4500 H+ B 1 236509 SO TAL CHI (Start) 05/15/14 13:11 (End) 05/15/14 13:22

Client Sample ID: North Pond Lab Sample ID: 500-76983-2

Date Collected: 05/14/14 10:00 Matrix: Ground Water

Date Received: 05/15/14 10:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			236481	05/15/14 14:00	LA1	TAL CHI
Total Recoverable	Analysis	6020A		1	236846	05/16/14 14:30	PFK	TAL CHI
Total/NA	Analysis	353.2		1	237465	05/21/14 14:01	BAH	TAL CHI
Total/NA	Analysis	SM 4500 H+ B		1	236509		so	TAL CHI
					(Start)	05/15/14 13:33		
					(End)	05/15/14 13:44		

Client Sample ID: South Pond Lab Sample ID: 500-76983-3

Date Collected: 05/14/14 10:05 Matrix: Ground Water Date Received: 05/15/14 10:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			236481	05/15/14 14:00	LA1	TAL CHI
Total Recoverable	Analysis	6020A		1	236846	05/16/14 14:33	PFK	TAL CHI
Total/NA	Analysis	353.2		1	237465	05/21/14 14:03	BAH	TAL CHI
Total/NA	Analysis	SM 4500 H+ B		1	236509		so	TAL CHI
					(Start)	05/15/14 13:55		
					(End)	05/15/14 14:06		

Client Sample ID: Trip Blank Lab Sample ID: 500-76983-4

Date Collected: 05/14/14 08:45 Matrix: Water

Date Received: 05/15/14 10:00

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	236760	05/17/14 16:31	JLH	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Certification Summary

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks - 05-14-14

TestAmerica Job ID: 500-76983-1

Laboratory: TestAmerica Chicago

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-15

Method Summary

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks - 05-14-14

TestAmerica Job ID: 500-76983-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL CHI
SM 4500 H+ B	pH	SM	TAL CHI

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Sample Summary

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks - 05-14-14

TestAmerica Job ID: 500-76983-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-76983-1	P&T Effluent	Ground Water	05/14/14 09:50	05/15/14 10:00
500-76983-2	North Pond	Ground Water	05/14/14 10:00	05/15/14 10:00
500-76983-3	South Pond	Ground Water	05/14/14 10:05	05/15/14 10:00
500-76983-4	Trip Blank	Water	05/14/14 08:45	05/15/14 10:00

Chain of Custody Record, 1st & 2nd Month of Quarter

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500-76963 CHENT CONTACT	Project Manager: Robert Johnson					Site Contact: Robert Johnson Date:						*************						COC No:		
O6ant	Tel/Fax: 815,923.4919; 815.923,2126				MANAGEST (SERVED	Lab Contact:							Carrier: UPS					2231130	1 of 1 COCs	
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PO#]	day		Septimization	Sam	ials	520	ន		1					1	1 1			The state of the s
	Sample	Sample	Sample		# of	Filtered Sample	VOCs (vials)	Metals* (250 ml jars) 1, 4	N + N (500 r	pH 1, 6										
Sample Identification	Date	·Time	Type	Matrix	Cont.	Fifte	ğ	Met	2	E										Sample Specific Notes:
P&T Effluent	5/14/14	09:5%	, G	GW	3	N	Х													
Р&Т рН	T .	09:30	G	GW	1	N	·			Х										
North Pond	3/14/14	10:00	G	GW	1	N		Х												
North Pond	SINIS	10:00	G	GW	1	N			Х											
North Pond	5/14/14	10:00	G	GW	1	Ν				Х										·
South Pond	8/14/14	10:05	G	G₩	1	Ν		Х												
South Pond	5/14/14	10:05	G	GW	1	Ν			X											
South Pond	3:/14/14		G	GW	1	Z				X.									-	
Trip Blank	s-line line	08:45	-		1		X	-	\dashv	+	+	\dashv	+		$\dashv \dashv$	-	\mathbf{h}	+	\vdash	·
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Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=Nac	OH; 6= Othe)1°		sia era esta esta esta esta esta esta esta est	10000000000000000000000000000000000000			十	7				1				11	\top	1	The state of the s
Possible Hazard Identification Non-Hazard Flammable Skin Irritant	Poison	harmon!	Unknown		HOLOGOPP PORTACION	***********	San		_		I (A I Client		· ·	asses Dispo		•		e rete		l longer than 1 month) For Months
Special Instructions/QC Requirements & Comments: North Pond Metals: Iron (Fe), Lead (Pb), Manganese (Mi South Pond Metals: Iron (Fe), Lead (Pb), Manganese (Mr Rec Center Metals: EPA Method 6020A & pH - no prese	ı), Nickel (N), Nickel (N	accopposecutos de la distribucio q	00.00.000,000.000,000.000.000.000.000.0	niede Parasana and an	iodogid i in na marka i in		ige anderese	10Poolstod:20	doffmusikk	teato de cop _{ens} o	,	Ödenes <u>gen</u> jö s		ico constitutiva	dato(ko.goofara	00000000000	ggg Bag s Bahkigg	unana di Pa	dehengsgagg	
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## **Login Sample Receipt Checklist**

Client: Central Wire (Techalloy) Job Number: 500-76983-1

Login Number: 76983 List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

,,		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	ON ICE
Cooler Temperature is recorded.	True	7.6c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	